Amendments to the Drawings:

Please replace Figure 3 with the attached replacement sheet.

Attachment: Replacement Sheet   1 page

REMARKS/ARGUMENTS

Amendments to the Drawings

Figure 3 is corrected to properly label the last 86-bytes of Buffer 1 as "Fragment 1". No new matter is entered. For example, please refer to paragraph [0008] as originally filed stating, "the first fragment (Fragment 1), which is stored starting in the last 86-bytes of Buffer 1 through to the first 106-bytes of Buffer 12."

The specification is objected to as failing to provide proper antecedent basis for "sub-header" in claims 3, 5, 6, 7, 8, 11, 13, 14, 15, 16.

The specification is amended to refer to the first and second outgoing IP headers as "sub-headers" to match the language utilized in the claims. No new matter is entered. In particular, claim 5 as originally filed states, "wherein the first outgoing sub-header is a first IP header". Additionally, claim 6 as originally filed states, "generating the first outgoing sub-header comprises modifying the MF, Offset, Length, and Checksum fields of the incoming IP header", which corresponds to original paragraph [0021] stating, "Additionally, the first outgoing IP header stored in the first buffer needs to have the MF, Offset, Length, and Checksum fields modified". The only difference between the specification and the claims was that in the claims the outgoing IP headers were referred to as sub-headers. Because the specification now matches the language utilized in the claims, there should no longer be an antecedent basis problem for the term "sub-header" in the claims. Withdrawal of the objection to the specification is respectfully requested.

Claims 1-5, 8-13, 16-18 are rejected under 35 USC 103a as being unpatentable over Kitada (US 20030037163), in view of Applicant admitted prior art (AAPA).

Claim 1 is amended to include the limitation "wherein the remaining portion corresponds to a majority of the payload of the incoming packet". A similar amendment is made to independent claim 9 in addition to deleting the clause "wherein the first fragment is stored within a single storage unit". Claims 17-19 are canceled. No new matter is entered. For

example, please refer to Figure 5 showing that the remaining portion (fragment 2) corresponds to the majority of the payload of the incoming packet. In particular, the 8-bytes of fragment 1 stored in the buffer 1 corresponds to a much smaller portion of the incoming payload in comparison with fragment 2, which is the majority of the payload and takes up

5   78-bytes of buffer 1 in addition to $128 * 10 + 114 = 1394$-bytes in buffers 2-12. In this way, it is clear that the second outgoing packet is formed by the remaining portion corresponding to the majority of the payload of the incoming packet. Figure 4 also illustrates the second outgoing packet 410 having a majority of the payload.

Concerning the patentability of currently amended claim 1 with respect to the cited

10   reference of Kitada and the AAPA, the applicant firstly notes that in the rejection of claim 1 by the Examiner, the Examiner stated that "Kitada may not explicitly teach" the limitation "transmitting the first outgoing packet being formed according to a predetermined portion of the payload stored in the first storage unit" of claim 1 of the present invention. The Examiner then stated this limitation is met by the AAPA stating, "(Fig. 3 up to the copy point [0022]

15   storage unit sizes other than 128-bytes are also acceptable; Hence, a first storage unit covering up to the copy point and a second storage unit covering the remaining bits)". In this interpretation by the Examiner, Buffer 1 would need to be increased in size to also hold all the data of fragment 1 stored in buffers 2-12. Also, Buffer 2 would only contain the 8-bytes of fragment 2 and the remaining space of Buffer 2 would be unused.

20   However, this approach suggested by the Examiner directly contradicts with currently amended claim 1 stating that the second outgoing packet is formed according to the remaining portion of the payload stored in the storage units wherein the remaining portion corresponds to a majority of the payload of the incoming packet. As previously described, in the configuration suggested by the Examiner, the majority of the payload is stored in first

25   outgoing packet, which is in contrast to the present invention. For example, refer to Figure 4 of the present invention showing that second outgoing packet 410 is formed according to the remaining portion (fragment 2) corresponding to the majority of the payload of the incoming packet. That is, in the present invention, the first outgoing packet 408 has smaller payload

than the second outgoing packet 410. Because the majority of the payload is in the second

outgoing packet 410, the first outgoing packet 408 is transmitted quickly and the sub-header

information (IP Hdr) of the second outgoing packet 410 is transmitted as soon as possible so

that the memory space occupied by the sub-header information in the buffers can be reused.

5   For example, see paragraph [0021] stating, "As soon as the data in the second buffer (Buffer

2) has been transmitted, Buffer 2 can be freed for use. This process continues for the

remaining buffers (Buffer 3 to Buffer 12) with each buffer being freed immediately after

having its data transmitted. This is more efficient than the prior art, which requires the

information in all the buffers to be stored until the data in the last buffer has been

10   transmitted."

        Therefore, the applicant asserts that claim 1 should be found allowable for at least the

reason that neither Kitada nor the AAPA teach at least the following limitations of claim 1:

        "after transmitting the first outgoing packet, transmitting <u>the second outgoing packet</u>

        <u>being formed according to a remaining portion of the payload</u> stored in the storage

15   units;

        wherein <u>the remaining portion corresponds to a majority of the payload</u> of the

        incoming packet." (currently amended claim 1 – emphasis added)

20   Reconsideration of claim 1 is respectfully considered. Independent claim 9 should be

found allowable for similar reasons, and dependent claims 2-8, and 10-16 should be found

allowable for at least the same reasons as their respective base claims.

Claims 6-7, 14-15, 19 are rejected under 35 USC 103a as being unpatentable over

25   **Kitada and Applicant admitted prior art, in view of Kitamura (US 20030065799)**

        As previously mentioned, claims 6-7, 14-15, and 19 are dependent upon base claims 1, 9,

and 17 and should therefore be found allowable for at least the same reasons provided above

for base claims 1, 9, and 17.

New Claims

New claims 20 to 23 are added. New independent claim 20 is similar to claim 1 with minor wording changes in the preamble, "storing payload of the incoming packet in a storage unit" (instead of a plurality of storage units as in claim 1), and "wherein the size of the second outgoing packet is larger than that of the first outgoing packet". New claim 21 corresponds to original claim 2, new claim 22 corresponds to original claim 4, and new claim 23 corresponds to original claim 3. No new matter is entered. In particular, the applicant notes that if the payload is stored in a plurality of storage units as in claim 1, then it also follows that payload of the incoming packet is stored in a storage unit. Additionally, as explained above in the support for the amendments to claims 1 and 9, Figure 4 as originally filed illustrates the size of the second outgoing packet 410 is larger than the size of the first outgoing packet 408.

Concerning the patentability of new independent claim 20, the applicant asserts that claim 20 should be found allowable for similar reasons as provided above for claim 1. In particular, neither Kitada nor the AAPA teach at least the feature of claim 20 stating, "wherein the size of the second outgoing packet is larger than that of the first outgoing packet". In particular, as admitted by the Examiner, Kitada does not teach "transmitting the first outgoing packet being formed according to a predetermined portion of the payload stored in the storage unit", and, as described above, the example situation suggested by the Examiner would not meet the claimed limitation that "the size of the second outgoing packet is larger than that of the first outgoing packet". For at least these reasons, the applicant asserts that claim 20 should be found allowable with respect to Kitada and the AAPA. Consideration of new claims 20-23 is respectfully requested.
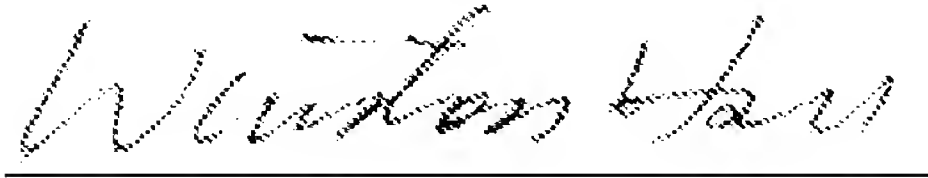
Conclusion

Thus, all pending claims are submitted to be in condition for allowance with respect to the cited art for at least the reasons presented above. The Examiner is encouraged to telephone the undersigned if there are informalities that can be resolved in a phone

conversation, or if the Examiner has any ideas or suggestions for further advancing the

prosecution of this case.

Sincerely yours,

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Date: 07/31/2008

Winston Hsu, Patent Agent No. 41,526

P.O. BOX 506, Merrifield, VA 22116, U.S.A.

Voice Mail: 302-729-1562

10   Facsimile: 806-498-6673

e-mail : winstonhsu@naipo.com

Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C.

is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)

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